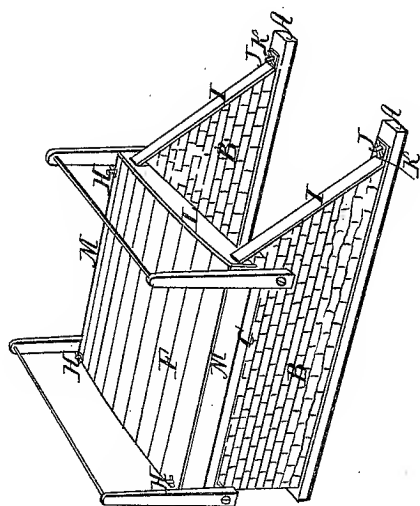
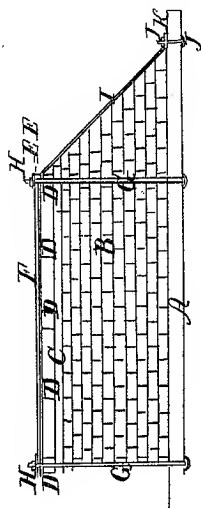


F. Good.
Truss Bridge.

Nº 450

Patented Nov. 4, 1837.



UNITED STATES PATENT OFFICE.

FRANCIS GOOD, OF NEW LONDON TOWNSHIP, PENNSYLVANIA.

CONSTRUCTION OF BRIDGES.

Specification of Letters Patent No. 450, dated November 4, 1837.

To all whom it may concern:

Be it known that I, FRANCIS GOOD, of New London township, in the county of Chester and State of Pennsylvania, have invented a
5 new and useful Improvement in the Construction of Bridges, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.
10 Having turned the water off from the place where it is intended to construct the bridge, I prepare the bottom to receive two parallel sills A, A, one placed on one side
15 of the stream and the other on the other side. Upon these sills I raise, to a suitable height, the walls B, B, which are to sustain the super structure and for preserving the banks, built of stone, about two feet thick
20 and sloped at the ends against the stream to an angle of about 35 or 45 degs. Upon these walls I place parallel plates C C, on which I place the ends of transverse beams D D D D D, over which I arrange, near the
25 ends, parallel plates of iron E E, with bolts passing through said plates and through the ends of the transverse beams into the parallel timbers C C. Over the transverse beams, (which are cambered) I place the flooring F
30 composed of thick plank spiked down at the ends upon the two outside beams. At each corner of the bridge is a strong bolt G (with a flat head) passing through the sill, stone wall, wall plate, end of the outside beam, metallic plate, the floor, metallic rim placed
35 on top of the floor, and there secured by a key or wedge H passing through a mortise in its upper end—the lower or flat end being

under the sill. Over the sloped part of each of the walls is laid an iron plate I extending from the sill to the top of the out- 40 side beam where it is secured by one of the corner bolts passing also through it, and at its lower end by a short bolt J passing through the sill and through the iron plate, secured by a key K on the top of the sill. 45 The ends of the flooring planks, against stream, are covered with a sheathing board L to protect them and form a finish. Likewise the ends of the transverse beams are covered with sheathing boards M M. 50

The bridge is constructed so that its top shall be about two feet above low water mark. Side rails of the ordinary construction are provided of iron or wood.

The invention claimed by me, the said 55 FRANCIS GOOD, and which I desire to secure by Letters Patent consists in—

The method of uniting and binding the wood and masonry of the bridge together by means of the vertical iron bolts and passing 60 through the sills, stone walls, wall plates, beams, iron plates, and flooring and keyed on top, in the manner before described, by which the bridge is rendered very strong and not liable to be washed away by the 65 sudden rising of the water. Also the addition of the iron plates E over the beams and those over the sloped ends of the walls, marked I.

FRANCIS GOOD.

Witnesses:
WM. P. ELLIOT,
WM. BISHOP.